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March 9, 2012

Thomas C. Moyer, Ph.D., P.G.
Black & Veatch Special Projects Corporation
11360 West 60th Avenue
Arvada, Colorado 80004

Re: Results of Additional Electrical Resistivity Imaging Investigations
Barite Hill Gold Mine, McCormick County, South Carolina

Dear Mr. Moyer

GEL Geophysics, LLC appreciates the opportunity to provide Black & Veatch Special Projects Corporation (BVSPC) with this report of our additional electrical resistivity imaging (ERI) investigations of the referenced site. The purpose of the investigation was to aid in characterizing the subsurface along select profiles at the site. The investigation entailed the collection, processing, presentation, and interpretation of resistivity and induced polarization (IP) data. The objectives of the investigation were to identify potential preferential groundwater pathways in bedrock and identify potential mine tailing leachate. The ERI investigation reported here was performed using the same equipment and following the same procedures as during the previous field campaign conducted in September of 2011. Therefore, for additional details on equipment, ERI methodology and procedures, please refer to GEL Geophysics' report titled "Electrical Resistivity Imaging, Barite Hill Gold Mine, McCormick County, South Carolina, September 22, 2011"

Field Procedures

All of GEL Geophysics field activities were supervised by a senior geophysicist and observed by BVSPC technical personnel. ERI data were collected along two profiles at the site:

- Profile 6: 1,000 feet profile on the east side of the Main pit
- Profile 7: 400 feet profile to the south east of the Rainsford pit

An electrode spacing of 7.5 meter (24.6 feet) was used for all profiles. The ground surface at Profile 7 was found to be very resistive resulting in low output currents and noisy data. GEL Geophysics mitigated these difficulties by pouring saltwater over the electrodes prior to commencing data collection. This method reduced the contact resistance by approximately 70 percent at most electrodes (from approximately 10,000 Ohm to approximately 3,000 Ohm for the locations with the highest contact resistance). The ground surface at Profile 6 did not need any additional site preparation.

Both Wenner and Dipole-Dipole arrays were used on both profiles since the data provided with the two arrays were found to complement each other well and to mitigate the difficult site

conditions mentioned above. Standard resistivity data was collected on Profile 6. Induced Polarization (IP) data and resistivity data were collected on Profile 7. At the completion of the ERI investigation, GEL Geophysics located the horizontal and vertical position of start and end point of each resistivity profile as well as each electrode location. The electrode positioning data was used in order to incorporate surface elevation variations into the data processing. The data was then converted to South Carolina State Plane, US Survey foot coordinate system.

Results and Conclusions

Following the completion of the data collection, the ERI data were inverted to resistivity and chargeability cross sections using EarthImager 2D. Noisy data points and data points with negative resistivity values were deleted from the data set prior to the inversion process. The collected data was compared with calculated data using the final inverted profile to ensure good correlation (Appendix 2). Data from all profiles were interpreted mainly by the use of the resistivity data.

The inverted profiles with interpretations are shown in Appendix 1. In Profile 6, the bedrock was successfully imaged with both Dipole-Dipole and Wenner arrays. The Dipole-Dipole data shows more vertical variations in the bedrock surface than the Wenner array does which is typical. Both datasets show potential depressions in the bedrock which could be due to softer bedrock associated with fracture zones. However, no leachate was detected in the bedrock along this profile line. Profile location for Profile 6 and locations of the interpreted bedrock depressions are shown on Figure 1. Profile 5 (from September 22, 2011, report) is also shown for comparison purposes.

Potential leachate was detected in the central portions of Profile 7. The location of Profile 7 and the location of the potential leachate are shown on Figure 2. The interpreted location of the Rainsford pit (from September 22, 2011, report) is also shown for comparison purposes. The potential leachate is visible as a low resistivity anomaly in Profile 7. However, based on the elevated IP readings for at least a part of this zone (see Appendix 1), it is possible that this low resistivity anomaly is, at least partly, due to the presence of crushed pyrite rich material.

GEL Geophysics suggests that some borings be conducted in these areas to verify the geophysical interpretation of the data.

Closing

GEL Geophysics appreciates the opportunity to assist BVSPC with this project. If you have any questions or need further information regarding the project, please do not hesitate to call me at (770)-980-1002.

Yours very truly,

Jorgen Bergstrom
Senior Geophysicist

Attachments:

Figure 1: ERI interpretations for Profile 6
Figure 2: ERI interpretations for Profile 7
Appendix 1: Inverted ERI Profiles
Appendix 2: Raw Data, Calculated Data and ERI Models

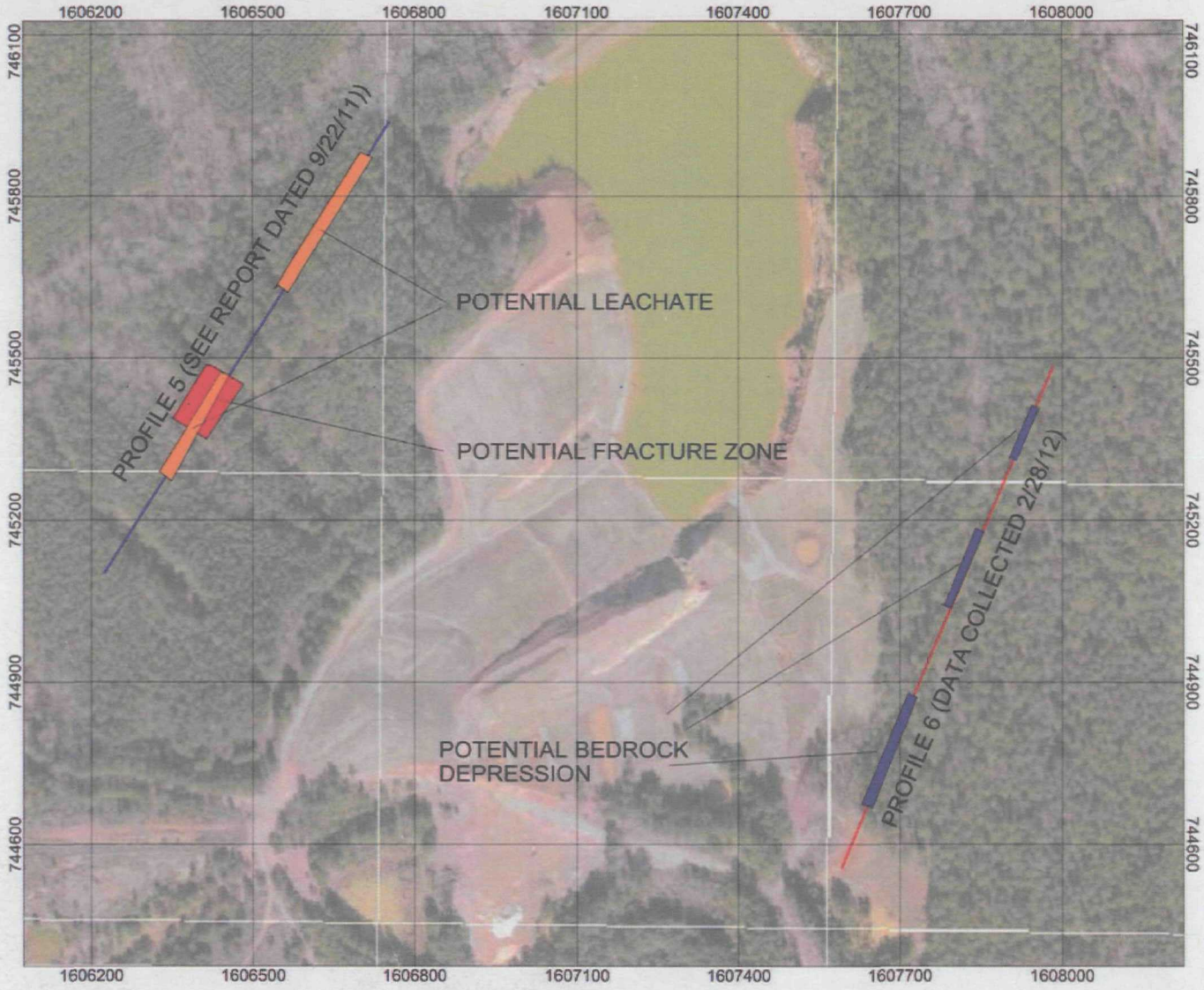


FIGURE 1 ERI INTERPRETATIONS FOR PROFILE 6

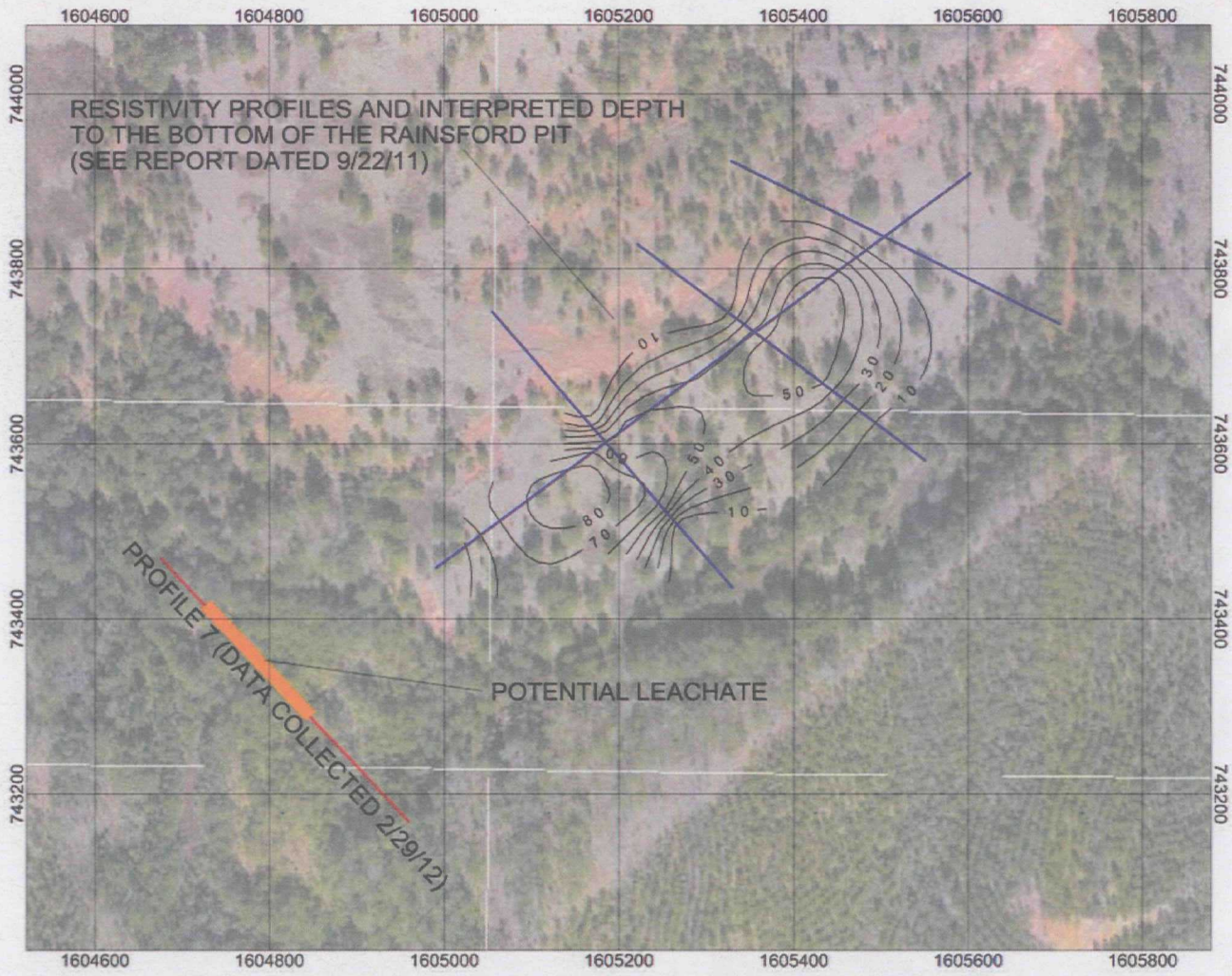


FIGURE 2 ERI INTERPRETATIONS FOR PROFILE 7

100 0 100 200

US survey foot Scale: 1"=200'

WGS 84 / South Carolina CS83

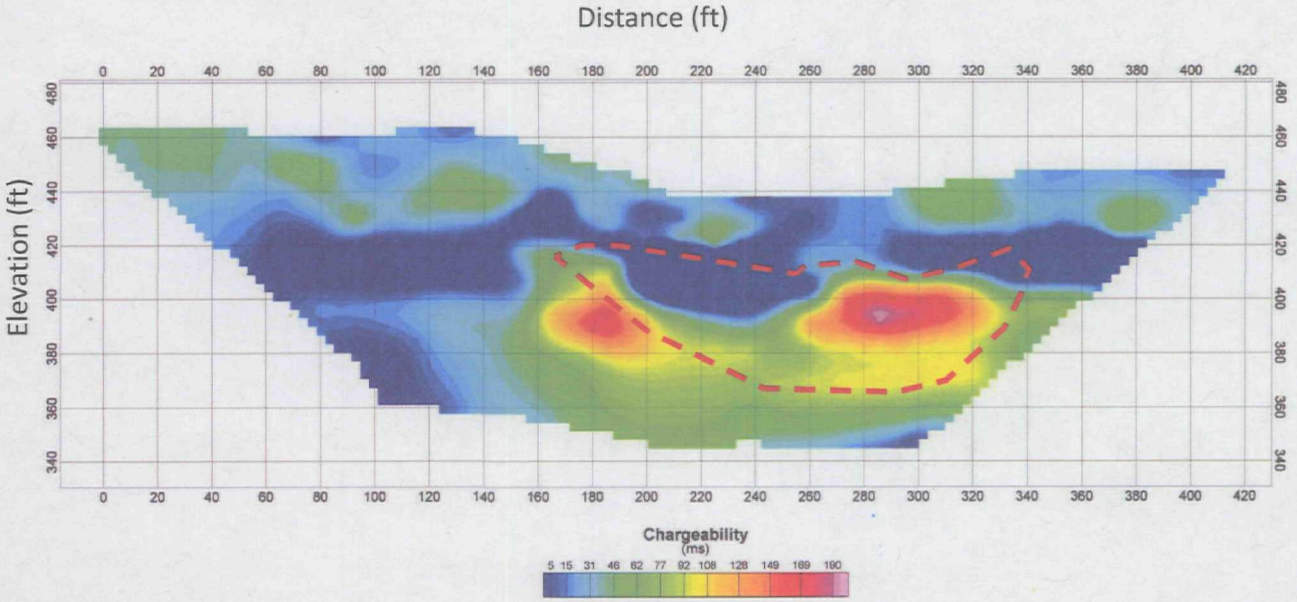
APPENDIX 1

INVERTED ERI PROFILES

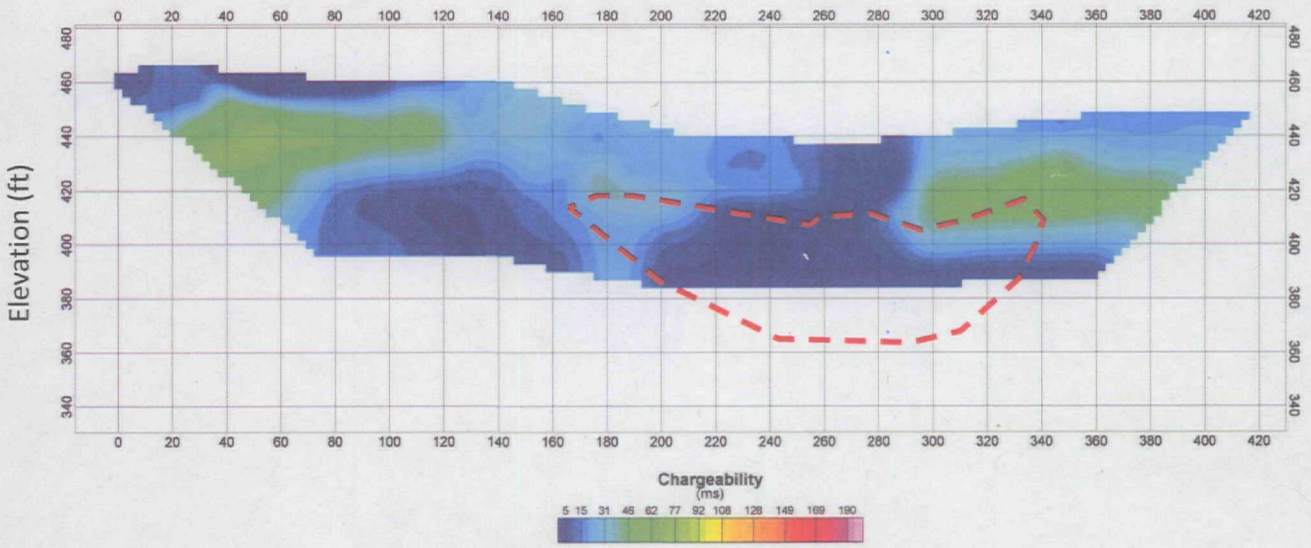
APPENDIX 2

RAW DATA, CALCULATED DATA AND ERI MODELS

SE Profile 7 Induced Polarization Dipole-Dipole NW

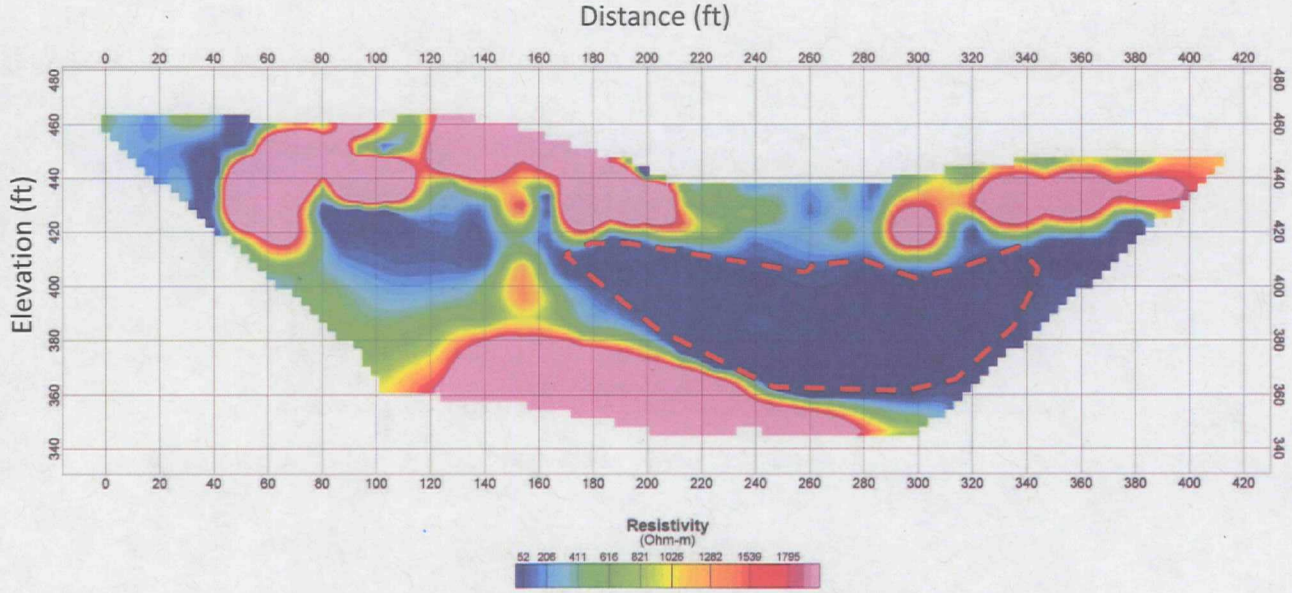


SE Profile 7 Induced Polarization Wenner NW

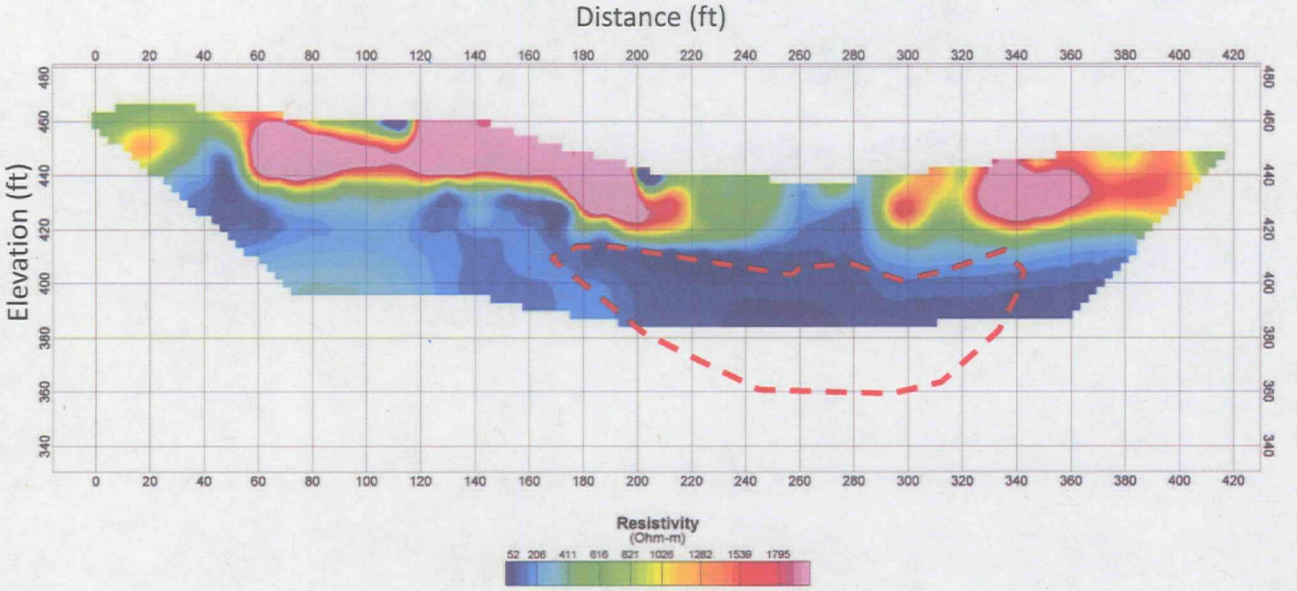


Potential leachate

SE Profile 7 Resistivity Dipole-Dipole NW

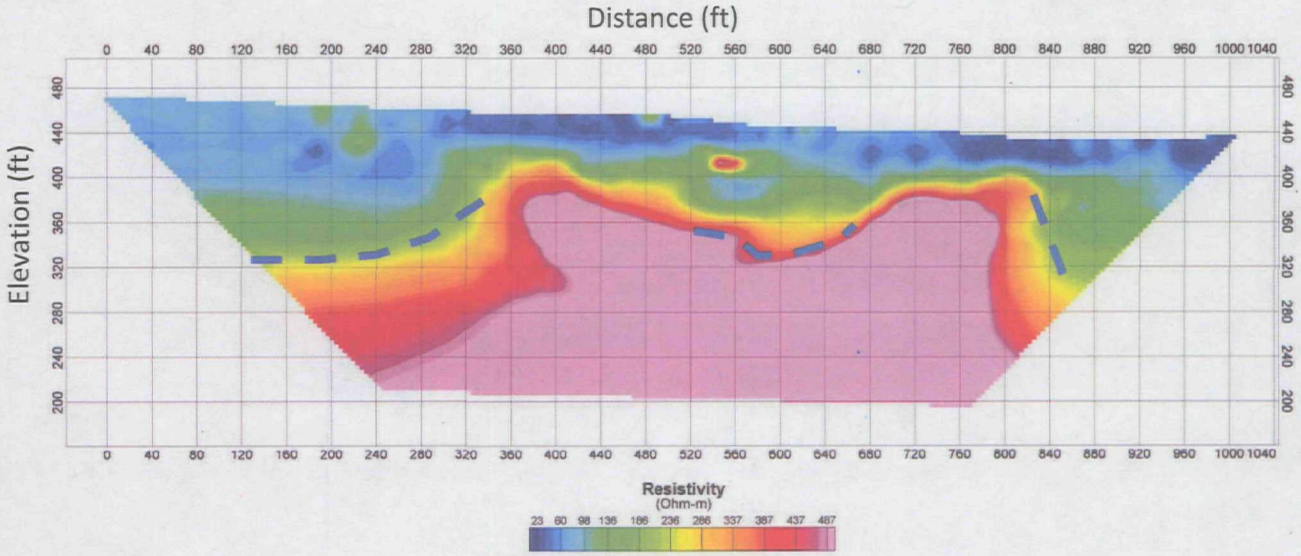


SE Profile 7 Resistivity Wenner NW

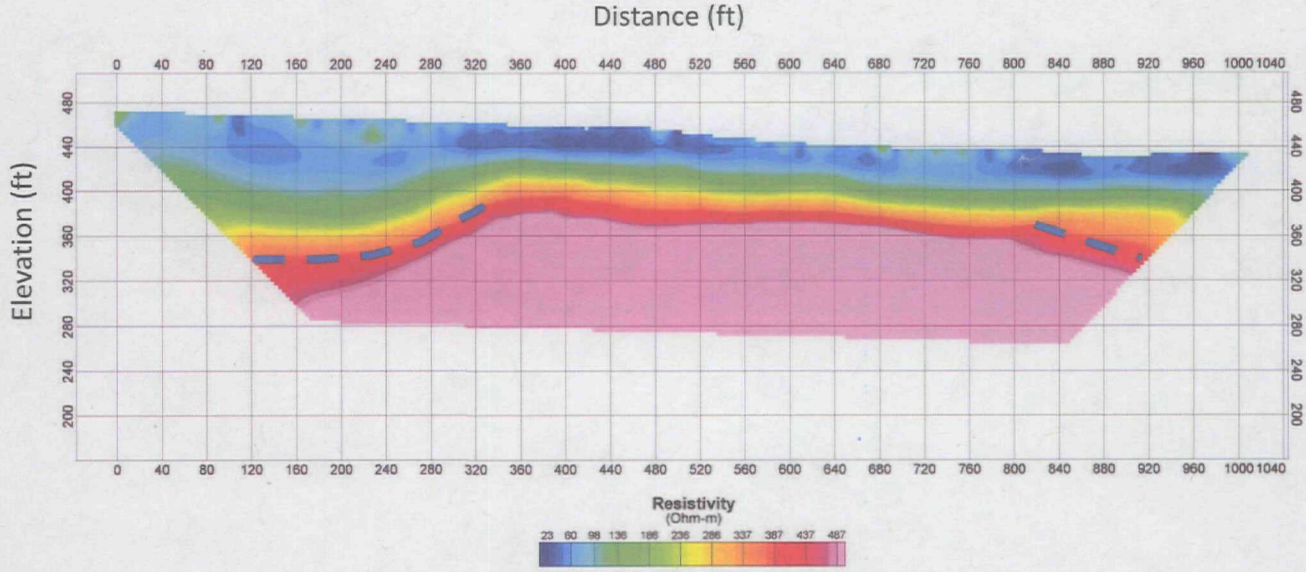


Potential leachate

SW Profile 6 Resistivity Dipole-Dipole NE

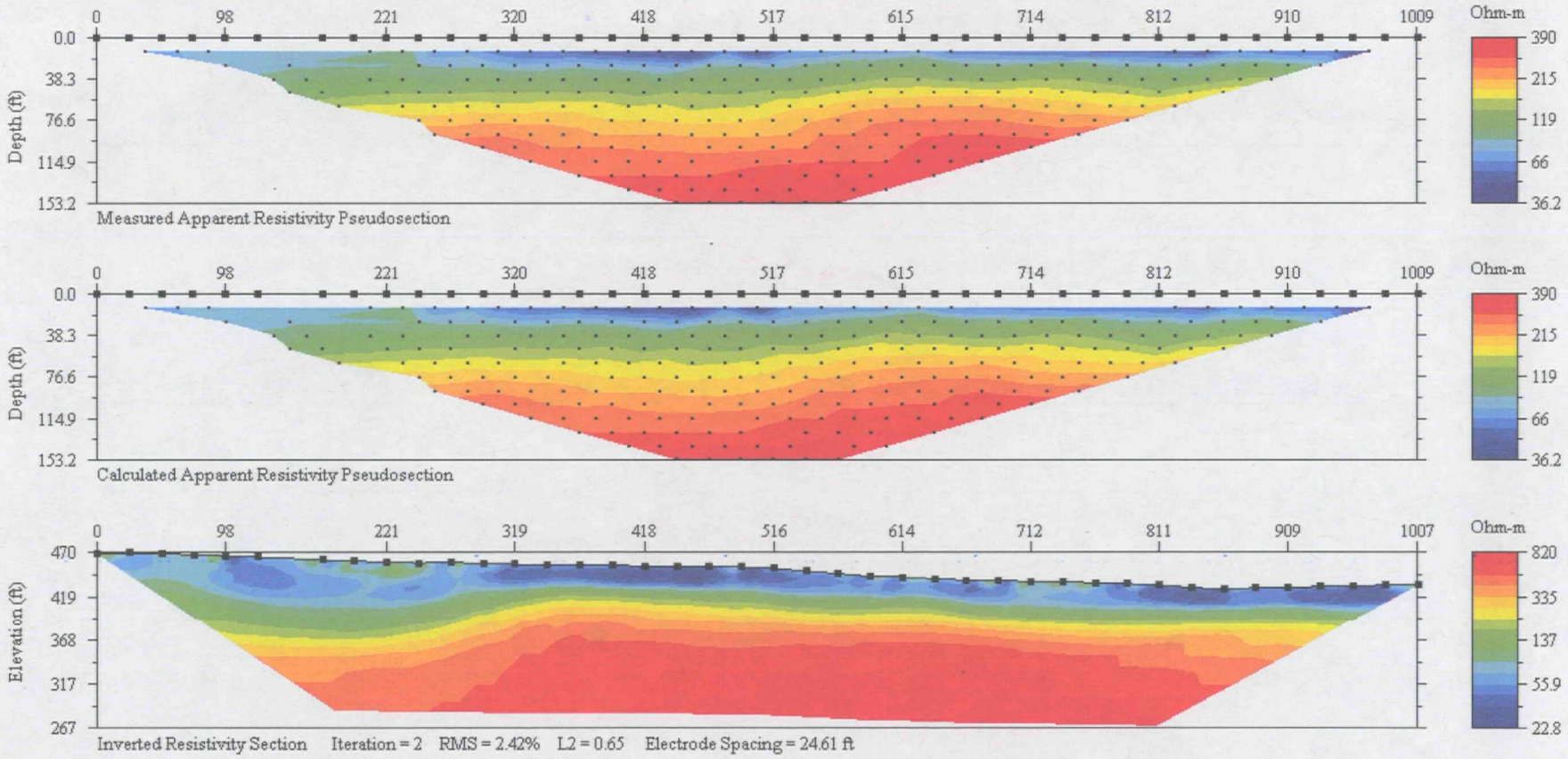


SW Profile 6 Resistivity Wenner NE

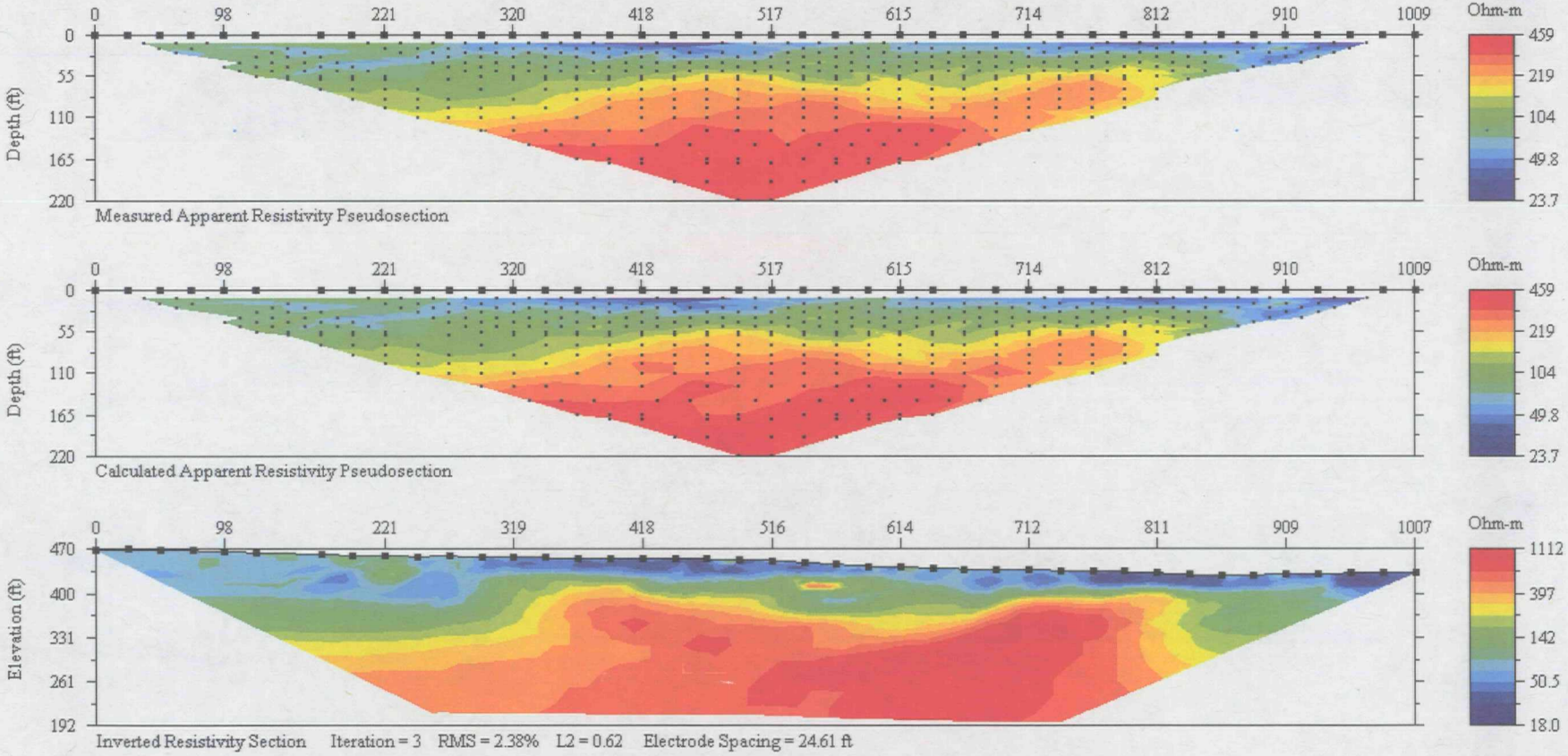


Potential bedrock depression, possibly associated with fracture zone

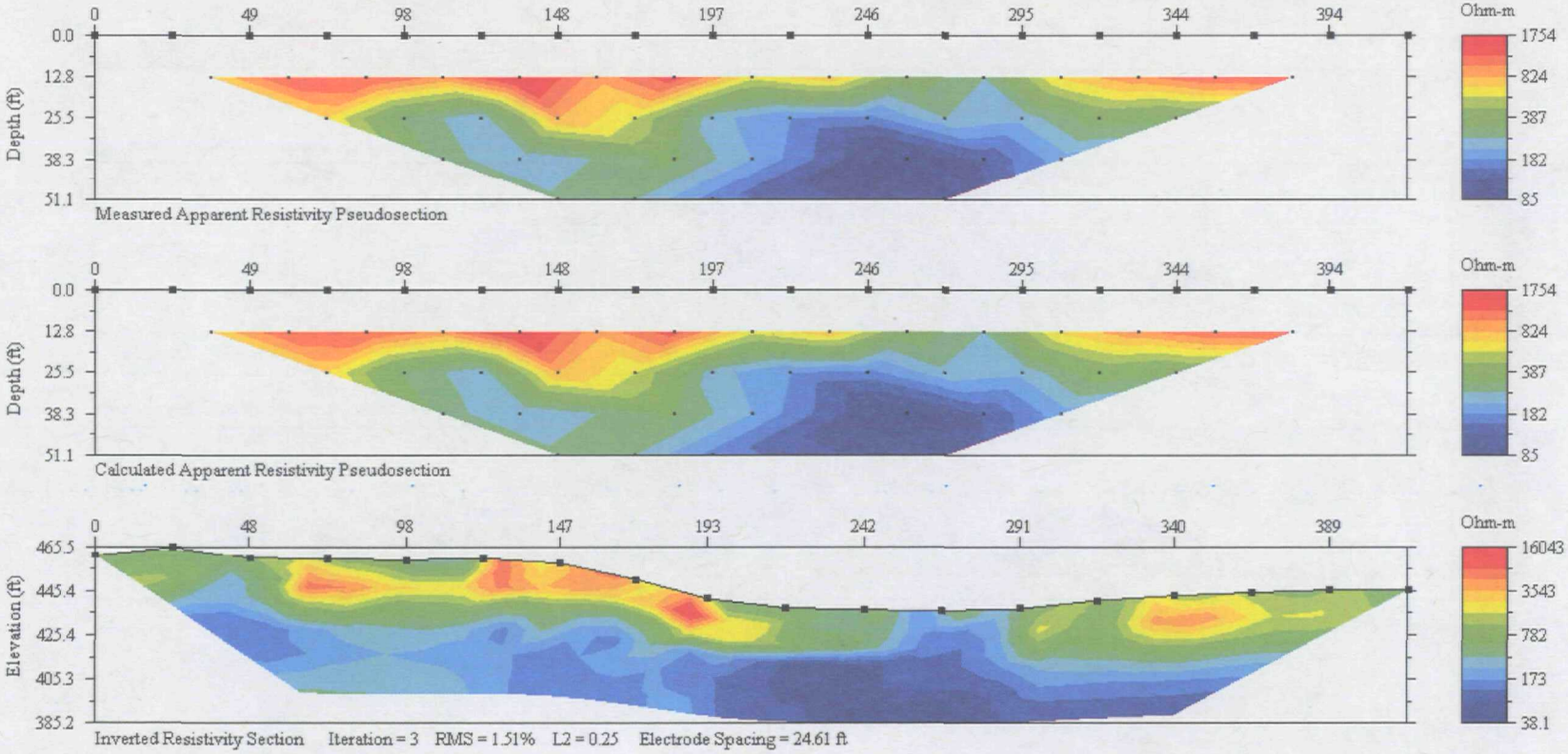
Profile 6 Resistivity Wenner



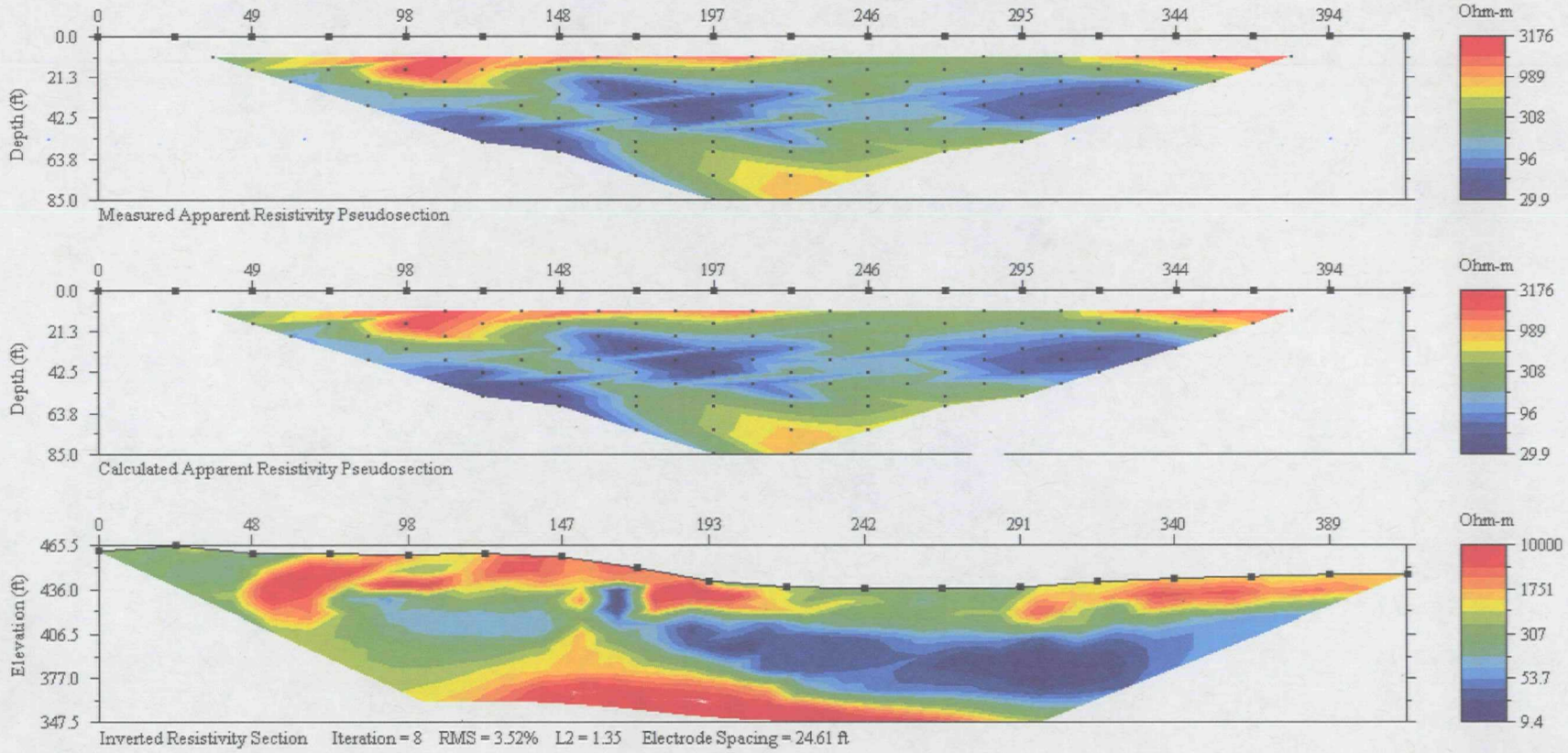
Profile 6 Resistivity Dipole-Dipole



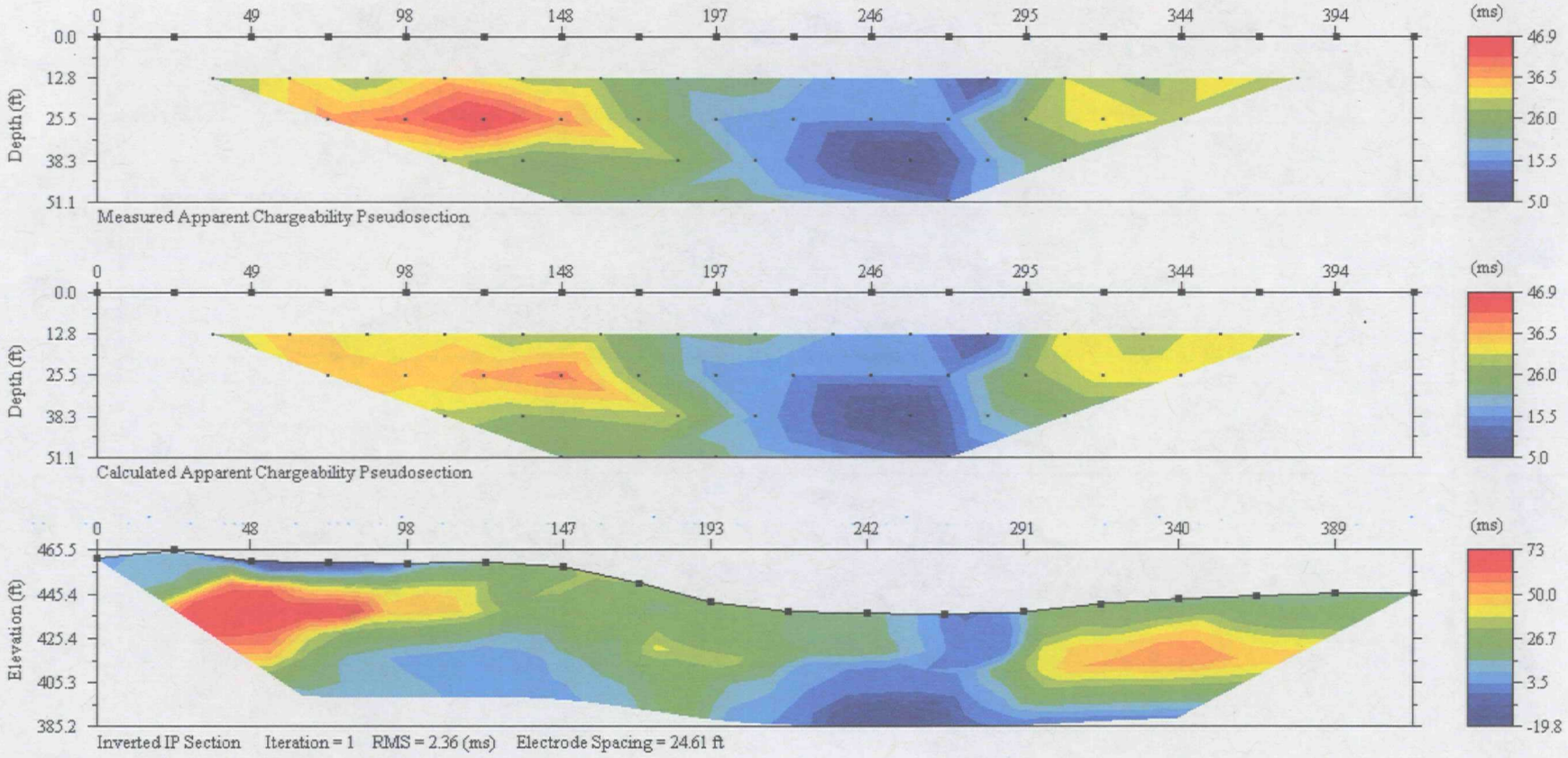
Profile 7 Resistivity Wenner



Profile 7 Resistivity Dipole-Dipole



Profile 7 IP Wenner



Profile 7 IP Dipole-Dipole